

STATE OF MISSOURI
DEPARTMENT OF NATURAL RESOURCES

MISSOURI CLEAN WATER COMMISSION



MISSOURI STATE OPERATING PERMIT

In compliance with the Missouri Clean Water Law, (Chapter 644 R.S. Mo. as amended, hereinafter, the Law), and the Federal Water Pollution Control Act (Public Law 92-500, 92nd Congress) as amended,

Permit No. MO-0116661

Owner: Burlington Northern & Santa Fe Railway Company
Address: 4515 Kansas Avenue, Kansas City, KS 66106

Continuing Authority: Same as above
Address: Same as above

Facility Name: BNSF, Lindenwood Yard
Facility Address: 7059 Marquette, St. Louis, MO 63139

Legal Description: See page 2
Latitude/Longitude: See page 2

Receiving Stream: Outfall #001, #002 & #003: Tributary to River Des Peres (U)
Outfall #004: Tributary to Deer Creek (U)

First Classified Stream and ID: River Des Peres (C) (01711)

USGS Basin & Sub-watershed No.: Outfall #001, #002 & #003: (07140101-070003)
Outfall #004: (07140101-070002)

is authorized to discharge from the facility described herein, in accordance with the effluent limitations and monitoring requirements as set forth herein:

FACILITY DESCRIPTION

Outfall #001 - Storm water runoff/parking lot & 25,000 gallon diesel fuel tank - SIC #4011. Design flow is 0.65 MGD.

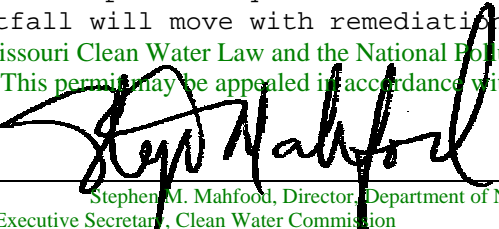
Outfall #002 - Storm water runoff/railroad yard - SIC #4011. Design flow is 1.29 MGD.

Outfall #003 - Storm water runoff/hub area - SIC #4011. Design flow is 0.022 MGD.

Outfall #004 - Storm water runoff/ballast clean-up activity. Flow will vary depending on area to be remediated - SIC #4011. This outfall will move with remediation activities.

This permit authorizes only wastewater discharges under the Missouri Clean Water Law and the National Pollutant Discharge Elimination System; it does not apply to other regulated areas. This permit may be appealed in accordance with Section 644.051.6 of the Law.

March 8, 2002 April 19, 2002
Effective Date Revised



Stephen M. Mahfood, Director, Department of Natural Resources
Executive Secretary, Clean Water Commission

March 7, 2007

Expiration Date
MO 780-0041 (10-93)

Interim Director of Staff, Clean Water Commission

Legal Descriptions:

Outfall #001: (NE $\frac{1}{4}$, NE $\frac{1}{4}$, NW $\frac{1}{4}$, Sec. 35 projected), T46N, R6E, St. Louis City

Outfall #002: (SE $\frac{1}{4}$, SE $\frac{1}{4}$, SW $\frac{1}{4}$, Sec. 28 projected), T46N, R6E, St. Louis City

Outfall #003: (NW $\frac{1}{4}$, SW $\frac{1}{4}$, SE $\frac{1}{4}$, Sec. 28 projected), T46N, R6E, St. Louis City

Outfall #004: (NW $\frac{1}{4}$, Sec. 35 projected), T46N, R6E, St. Louis City AND St. Louis County.
(This Outfall will move with remediation activities.)

Latitude/Longitude:

Outfall #001: +3836050/-09018554

Outfall #002: +3836111/-09018486

Outfall #003: +3836194/-09018486

Outfall #004: +3835582/-09019058

					PAGE NUMBER 3 of 7	
A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS					PERMIT NUMBER MO-0116661	
The permittee is authorized to discharge from outfall(s) with serial number(s) as specified in the application for this permit. The final effluent limitations shall become effective upon issuance and remain in effect until expiration of the permit. Such discharges shall be controlled, limited and monitored by the permittee as specified below:						
OUTFALL NUMBER AND EFFLUENT PARAMETER(S)	UNITS	FINAL EFFLUENT LIMITATIONS			MONITORING REQUIREMENTS	
		DAILY MAXIMUM	WEEKLY AVERAGE	MONTHLY AVERAGE	MEASUREMENT FREQUENCY	SAMPLE TYPE
<u>Outfalls #001 & #003</u> Flow	MGD	*		*	once/year	24 hr. estimate
Chemical Oxygen Demand ₅	mg/L	120		90	once/year	grab***
Settleable Solids	mL/L/hr	1.5		1.0	once/year	grab***
Total Suspended Solids	mg/L	100		50	once/year	grab***
pH - Units	SU	****		****	once/year	grab***
Oil & Grease	mg/L	15		10	once/year	grab***
Polycyclic Aromatic Hydrocarbons	mg/L	*		*	once/year	grab***
Phenolics	mg/L	*		*	once/year	grab***
MONITORING REPORTS SHALL BE SUBMITTED <u>ANNUALLY</u> ; THE FIRST REPORT IS DUE <u>October 28, 2002</u> .						
The permittee is authorized to discharge from outfall(s) with serial number(s) as specified in the application for this permit. The interim effluent limitations shall become effective upon issuance and remain in effect until June 30, 2002. Such discharges shall be controlled, limited and monitored by the permittee as specified below:						
OUTFALL NUMBER AND EFFLUENT PARAMETER(S)	UNITS	INTERIM EFFLUENT LIMITATIONS			MONITORING REQUIREMENTS	
		DAILY MAXIMUM	WEEKLY AVERAGE	MONTHLY AVERAGE	MEASUREMENT FREQUENCY	SAMPLE TYPE
<u>Outfall #002</u> Flow	MGD	*		*	once/quarter**	24 hr. estimate
Chemical Oxygen Demand ₅	mg/L	*		*	once/quarter**	grab***
Settleable Solids	mL/L/hr	1.5		1.0	once/quarter**	grab***
Total Suspended Solids	mg/L	100		50	once/quarter**	grab***
pH - Units	SU	****		****	once/quarter**	grab***
Oil and Grease	mg/L	15		10	once/quarter**	grab***
Polycyclic Aromatic Hydrocarbons	mg/L	*		*	once/quarter**	grab***
Phenolics	mg/L	*		*	semi-annual	grab***
MONITORING REPORTS SHALL BE SUBMITTED <u>QUARTERLY</u> ; THE FIRST REPORT IS DUE <u>July 28, 2002</u> . THERE SHALL BE NO DISCHARGE OF FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS.						
B. STANDARD CONDITIONS						
IN ADDITION TO SPECIFIED CONDITIONS STATED HEREIN, THIS PERMIT IS SUBJECT TO THE ATTACHED <u>Part I</u> STANDARD CONDITIONS DATED <u>October 1, 1980</u> , AND HEREBY INCORPORATED AS THOUGH FULLY SET FORTH HEREIN.						

					PAGE NUMBER 4 of 7	
A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS					PERMIT NUMBER MO- 0116661	
The permittee is authorized to discharge from outfall(s) with serial number(s) as specified in the application for this permit. The final effluent limitations shall become effective July 1, 2002 and remain in effect until expiration of the permit. Such discharges shall be controlled, limited and monitored by the permittee as specified below:						
OUTFALL NUMBER AND EFFLUENT PARAMETER(S)	UNITS	FINAL EFFLUENT LIMITATIONS			MONITORING REQUIREMENTS	
		DAILY MAXIMUM	WEEKLY AVERAGE	MONTHLY AVERAGE	MEASUREMENT FREQUENCY	SAMPLE TYPE
<u>Outfall #002</u>						
Flow	MGD	*		*	once/quarter**	24 hr. estimate
Chemical Oxygen Demand ₅	mg/L	120		90	once/quarter**	grab***
Total Suspended Solids	mg/L	100		50	once/quarter**	grab***
Settleable Solids	SU	1.5		1.0	once/quarter**	grab***
pH - Units	mg/L	****		****	once/quarter**	grab***
Oil and Grease	mg/L	15		10	once/quarter**	grab***
Polycyclic Aromatic Hydrocarbons	mg/L	*		*	once/quarter**	grab***
Phenolics	mg/L	*		*	semi-annual	grab***
MONITORING REPORTS SHALL BE SUBMITTED <u>QUARTERLY</u> ; THE FIRST REPORT IS DUE <u>July 28, 2002</u> . THERE SHALL BE NO DISCHARGE OF FLOATING SOLIDS OR VISIBLE FOAM IN OTHER THAN TRACE AMOUNTS.						
B. STANDARD CONDITIONS						
IN ADDITION TO SPECIFIED CONDITIONS STATED HEREIN, THIS PERMIT IS SUBJECT TO THE ATTACHED <u>Part I</u> STANDARD CONDITIONS DATED <u>October 1, 1980</u> , AND HEREBY INCORPORATED AS THOUGH FULLY SET FORTH HEREIN.						

PAGE NUMBER 5 of 7						
PERMIT NUMBER MO-0116661						
A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS						
The permittee is authorized to discharge from outfall(s) with serial number(s) as specified in the application for this permit. The final effluent limitations shall become effective upon issuance and remain in effect until expiration of the permit. Such discharges shall be controlled, limited and monitored by the permittee as specified below:						
OUTFALL NUMBER AND EFFLUENT PARAMETER(S)	UNITS	FINAL EFFLUENT LIMITATIONS			MONITORING REQUIREMENTS	
		DAILY MAXIMUM	WEEKLY AVERAGE	MONTHLY AVERAGE	MEASUREMENT FREQUENCY	SAMPLE TYPE
<u>Outfall #004</u> (Notes 1 & 2)						
Flow	MGD	*		*	once/week when discharge occurs	24 hr. estimate
Chemical Oxygen Demand	mg/L	120		90	once/week when discharge occurs	grab***
Oil and Grease	mg/L	15		10	once/week when discharge occurs	grab***
pH - Units	SU	****		****	once/week when discharge occurs	grab***
Settleable Solids	mL/L/hr	1.5		1.0	once/week when discharge occurs	grab***
Lead, Total Recoverable	µg/L	190		190	once/week when discharge occurs	grab***
Cadmium, Total Recoverable	µg/L	*		*	once/week when discharge occurs	grab***
Polynuclear Aromatic Hydrocarbons (PAHs)	µg/L	*		*	once/week when discharge occurs	grab***
MONITORING REPORTS SHALL BE SUBMITTED <u>MONTHLY</u> ; THE FIRST REPORT IS DUE <u>April 28, 2002</u> . THERE SHALL BE NO DISCHARGE OF FLOATING SOLIDS OR VISIBLE <u>FOAM</u> IN OTHER THAN TRACE AMOUNTS.						
B. STANDARD CONDITIONS						
IN ADDITION TO SPECIFIED CONDITIONS STATED HEREIN, THIS PERMIT IS SUBJECT TO THE ATTACHED <u>Part I</u> STANDARD CONDITIONS DATED <u>October 1, 1980</u> , AND HEREBY INCORPORATED AS THOUGH FULLY SET FORTH HEREIN.						

MO 780-0010 (8/91)

A. EFFLUENT LIMITATIONS AND MONITORING REQUIREMENTS (continued)

- * Monitoring requirement only.
- ** Sample once per quarter in the months of March, June, September, and December.
- *** A representative grab sample shall be collected during a rainfall that results in a discharge.
- **** pH is measured in pH units and is not to be averaged. The pH is limited to the range of 6.0-9.0 pH units.

Note 1 - Outfall #004 will move with the remediation activities and may contain sub-outfalls as proposed by BNSF and approved by MDNR.

Note 2 - Monitoring requirements shall apply from the time site remediation begins until surface stabilization within the remedial area is satisfactorily achieved as determined by MDNR based on monitoring data submitted by BNSF and on-site inspections by MDNR.

C. SCHEDULE OF COMPLIANCE

1. By June 30, 2002, permittee shall submit a report of an engineering investigation characterizing the storm water runoff from outfall 002 and the report shall describe treatment and best management practice options that will reduce the pollution (particularly chemical oxygen demand and oil/grease) in the storm water runoff so that the final effluent limitations can be routinely achieved. Treatment options to be considered shall include the installation of settling ponds, oil-water separators, grease traps, or other devices to treat the storm water.
2. By June 30, 2003, permittee shall have installed treatment measures or implemented best management practices as described in the engineering report and agreed to by the Department's Water Pollution Control engineering staff.

D. SPECIAL CONDITIONS

1. This permit may be reopened and modified, or alternatively revoked and reissued, to:
 - (a) Comply with any applicable effluent standard or limitation issued or approved under Sections 301(b)(2)(C) and (D), 304(b)(2), and 307(a) (2) of the Clean Water Act, if the effluent standard or limitation so issued or approved:
 - (1) contains different conditions or is otherwise more stringent than any effluent limitation in the permit; or
 - (2) controls any pollutant not limited in the permit.
 - (b) Incorporate new or modified effluent limitations or other conditions, if the result of a waste load allocation study, toxicity test or other information indicates changes are necessary to assure compliance with Missouri's Water Quality Standards.
 - (c) Incorporate new or modified effluent limitations or other conditions if, as the result of a watershed analysis, a Total Maximum Daily Load (TMDL) limitation is developed for the receiving waters which are currently included in Missouri's list of waters of the state not fully achieving the state's water quality standards, also called the 303(d) list.

The permit as modified or reissued under this paragraph shall also contain any other requirements of the Clean Water Act then applicable.

2. All outfalls must be clearly marked in the field.
3. Permittee shall direct any and all future process wastewater streams that may be generated to the regional sewer operated by the Metropolitan St. Louis Sewer District (MSD) in a manner compatible with MSD requirements.
4. Changes in Discharges of Toxic Substances

The permittee shall notify the Director as soon as it knows or has reason to believe:

- (a) That any activity has occurred or will occur which would result in the discharge of any toxic pollutant which is not limited in the permit, if that discharge will exceed the highest of the following "notification levels:"
 - (1) One hundred micrograms per liter (100 ug/L);
 - (2) Two hundred micrograms per liter (200 ug/L) for acrolein and acrylonitrile; five hundred micrograms per liter (500 ug/L) for 2,5 dinitrophenol and for 2-methyl-4, 6-dinitrophenol; and one milligram per liter (1 mg/L) for antimony;
 - (3) Five (5) times the maximum concentration value reported for the pollutant in the permit application;
 - (4) The level established in Part A of the permit by the Director.
- (b) That they have begun or expect to begin to use or manufacture as an intermediate or final product or byproduct any toxic pollutant, which was not reported in the permit application.

D. SPECIAL CONDITIONS (continued)

5. Report as no-discharge when a discharge does not occur during the report period.
6. General Criteria. The following water quality criteria shall be applicable to all waters of the state at all times including mixing zones. No water contaminant, by itself or in combination with other substances, shall prevent the waters of the state from meeting the following conditions:
- (a) Waters shall be free from substances in sufficient amounts to cause the formation of putrescent, unsightly or harmful bottom deposits or prevent full maintenance of beneficial uses;
 - (b) Waters shall be free from oil, scum and floating debris in sufficient amounts to be unsightly or prevent full maintenance of beneficial uses;
 - (c) Waters shall be free from substances in sufficient amounts to cause unsightly color or turbidity, offensive odor or prevent full maintenance of beneficial uses;
 - (d) Waters shall be free from substances or conditions in sufficient amounts to result in toxicity to human, animal or aquatic life;
 - (e) There shall be no significant human health hazard from incidental contact with the water;
 - (f) There shall be no acute toxicity to livestock or wildlife watering;
 - (g) Waters shall be free from physical, chemical or hydrologic changes that would impair the natural biological community;
 - (h) Waters shall be free from used tires, car bodies, appliances, demolition debris, used vehicles or equipment and solid waste as defined in Missouri's Solid Waste Law, section 260.200, RSMo, except as the use of such materials is specifically permitted pursuant to section 260.200-260.247.

7. Reporting of Effluent Violations

- (a) If any of the sampling results from any of the outfalls show any violations of the permit discharge limitations, written notification shall be made to the Department of Natural Resources within five (5) days of notification of analytical results. Notification shall indicate the date(s) of sample collection, the analytical results, and permit number, and shall include a statement concerning the revisions or modifications in management practices that are being implemented to address the violation of the limitations that occurred.
- (b) After a violation has been reported, a sample of storm water runoff resulting from the next rainfall greater than 0.1 inches shall be collected at outfall(s) for which the violation occurred. Analytical results of this sample shall be submitted in writing to the department of Natural Resources (this paragraph supersedes Part I, Section B: e.A. Noncompliance Notification).

8. Records Retention and Reporting

Monitoring reports shall be submitted within 28 days after the end of each quarter. All sampling data shall be maintained by the permittee for a period of five (5) years and shall be supplied to the Department of Natural Resources upon written request (superseded Part I. Sections A: 7. Records Retention). A copy of all of the sampling data must be submitted with an application for reissuance of this permit.

Date of Fact Sheet: September 29, 2000

Date of Public Notice: December 21, 2001

NATIONAL POLLUTANT DISCHARGE ELIMINATION SYSTEM (NPDES) PERMIT
FACT SHEET

This Fact Sheet explains the applicable regulations, rationale for development of this permit and the public participation process.

NPDES PERMIT NUMBER: MO-0116661

FACILITY NAME: BNSF, Lindenwood Yard

OWNER NAME: Burlington Northern & Santa Fe Railway Company

LOCATION: Sec. 28 & 35, T46N, R6E, St. Louis County & St. Louis City County

RECEIVING STREAM: Outfalls #001 - 003: River Des Pres (Missouri River and Central Tribs.
Basin) (07140101-18-01)
Outfalls #004: Deer Creek (Missouri River and Central Tributaries
Basin) (07140101-18-02)

FACILITY CONTACT PERSON: James M. Cunningham, Environmental Operations Manager

TELEPHONE: 913-661-4112

FACILITY DESCRIPTION AND RATIONALE

The Burlington Northern and Santa Fe Railway Company has applied for re-issuance of its State Operating Permit MO-0116661 for discharges from the company's Lindenwood Yard in the City of St. Louis and from remedial activities to occur along a track location west of the yard in St. Louis County and extending into the City of St. Louis. There are four numbered outfalls at the Lindenwood yard. Outfall #001, #002, and #003 are the same as existed in the previous permit and are storm water discharged from the site. This area also includes a 25,000 gallon diesel fuel storage tank and runoff from the containment area is included in this outfall. Outfall #001 discharges storm water from the parking lot and truck unloading area at the west end of the site. Outfall #002 discharges storm water from the railway yards. There is a storm water collection system that channels all storm water runoff from the tracks to this outfall. Outfall #003 is a storm water area from the "hub" area. This area is an area where parked trailers are parked when they are not in use and also where they are loaded or unloaded from railway cars.

Runoff from outfalls #001 through outfalls #003 will flow to the River Des Peres in the Mississippi River and Central Tributaries Basin.

Outfall #004 is for runoff from various locations along the railway tracks that will occur while remedial clean-up of ballast piles is underway. These ballast piles were dumped along the track and have been found to contain lead. The railway has agreed to remove the contaminated material from the tracks. Runoff from this site will flow to Deer Creek, and then to the River Des Peres in the Mississippi River and Central Tributaries Basin.

Table A below provides the outfall legal description, receiving stream, and source area.

Table A

Legal Description, Receiving Streams, and Source Area

<u>Outfall No.</u>	<u>Legal Description</u>	<u>Receiving Stream</u>	<u>Source Area</u>
001	NE ¼, NE ¼, NW ¼, Sec. 35, T46N, R6E, St. Louis City	River Des Peres	Parking lot & diesel fuel storage tank - West end of site.
002	SE ¼, SE ¼, SW ¼, Sec. 28, T46N, R6E, St. Louis City	River Des Peres	Railroad yard
003	NW ¼, SW ¼, SE ¼, Sec. 28, T46N, R6E, St. Louis City	River Des Peres	Hub Area
004	NW ¼, Sec. 35, T46N, R6E, St. Louis County and Deer Creek St. Louis County		Ballast Pile Clean-up Area

The permit contains effluent limitations for the above four outfalls. Outfall #002 contains both interim and final effluent limitations. The permit contains a schedule of compliance that will require the permittee to submit, by June 30, 2002, a report of an engineering investigation characterizing the storm water runoff from outfall #002. The report shall describe treatment and best management practice options that will reduce the pollution in the storm water runoff so that the final effluent limitations can be routinely achieved. Treatment options to be considered shall include the installation of settling ponds, oil-water separators, grease traps, or other devices to treat the storm water. By June 30, 2003, the owner shall have installed treatment measure or implemented best management practices as described in the engineering report and agreed to by the Department's Water Pollution Oxygen Demand (COD) will be limited to a maximum monthly average concentration of 90 mg/L and the maximum daily concentration will be 120 mg/L.

Table B below lists the interim and final effluent limitations for outfall #002. The interim effluent limitation will take effect upon issuance of the permit and will expire June 30, 2002. The final effluent limitation for COD will take effect July 1, 2002 and will expire when the permit expires.

Table B

Interim and Final Effluent Limitations - Outfall #002

<u>Parameter</u>	<u>Units</u>	<u>Daily Maximum</u>	<u>Monthly Average</u>	<u>Measurement Frequency</u>	<u>Sample Type</u>
Flow	MGD	*	*	once/quarter	24 hr. estimate
Chemical Oxygen Demand (Interim)	mg/L	*	*	once/quarter	grab
Chemical Oxygen Demand (Final)	mg/L	120	90	once/quarter	grab
Total Suspended	mg/L	100	50	once/quarter	grab
Settleable Solids	mL/L/hr	1.5	1.0	once/quarter	grab
pH	SU	Note 1	Note 1	once/quarter	grab
Oil & Grease	mg/L	15	10	once/quarter	grab
Polycyclic Aromatic Hydrocarbons	mg/L	*	0*	once/quarter	grab
Phenolics	mg/L	*	*	semi-annual	grab

The above effluent limitations were developed based on previously issued permits for another railway site cleanup. Samples are to be collected and analyzed in each week when a discharge occurs. The cleanup operation is expected to take less than one year from the time it begins.

This permit will be issued for a period of five years.